

ii) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

21. (Amended) The method according to claim 34 wherein vinyl benzyl halide is used.

23. (Amended) An electrically conductive polymeric article prepared according to the method of claim 1 or 35.

Please add the following claims:

--34. The method according to claim 9 wherein the viologen coated polymeric material is formed by a method comprising:

a) providing a low density polyethylene film substrate; a solution of aniline or pyrrole; ammonium persulfate; a vinyl alkyl halide or vinyl benzyl halide; an alkyl halide; and 4,4'-bipyridine;

b) immersing the polyethylene film substrate into the solution of aniline or pyrrole and ammonium persulfate for a period sufficient to form a polymeric coating on the substrate;

c) contacting the coated substrate with the vinyl alkyl halide or vinyl benzyl halide;

Sub 7
C7
Cmcl
d) subjecting the mixture to UV or near UV irradiation for a time sufficient to form a vinyl alkyl halide or vinyl benzyl halide grafted substrate; and

e) forming the viologen on the vinyl alkyl halide or vinyl benzyl halide grafted substrate via reaction with 4,4' bipyridine and an alkyl halide.--

--35. A method according to claim 4 wherein the viologen bearing substrate is made by a method comprising:

Sub 7
B7
Cmcl
i) providing a vinyl alkyl halide grafted low density polyethylene film substrate;

an alkyl halide; and

4,4'-bipyridine;

ii) contacting the grafted film substrate with the 4,4'-bipyridine for a time sufficient to permit reaction therebetween forming a modified grafted film substrate;

iii) subsequently contacting the modified grafted film substrate with the alkyl halide for a time sufficient to permit the formation of a viologen grafted film.--